

## 2. Project Summary

The Tuolumne County Resource Conservation District (RCD) proposes purchasing bacterial sampling equipment and professional laboratory services to better define the location and sources (e.g., human, cattle, domestic pets) of fecal contamination in surface waters countywide as necessary to assist multiple agencies in directing their limited resources most effectively to reduce and eliminate fecal contamination by implementing programs identified in the Regional Water Quality Control Board approved *Tuolumne County Water Quality Plan* (2007). The project provides a model for local communities throughout the Sierra Nevada to involve students and community volunteers in partnership with water districts, government agencies and special districts to reduce fecal contamination of Sierra Nevada waters.

Consistent with the USEPA's recommended multi-indicator assessment approach to responding to fecal coliform levels exceeding state standards, the RCD will acquire IDEXX bacterial sampling and analysis equipment to identify *E. coli* and *Enterococcus* "hot spots" countywide. Bacterial analysis will be undertaken by trained volunteers (professors and teachers from Columbia Community College and Summerville Union High School who are current members of the RCD's established Tuolumne County Stream Team volunteer water quality monitoring program) and their students. Volunteers will be trained by the State's Clean Water Team. Samples from identified coliform "hot spots" will be forwarded to a professional lab to identify the sources and quantify the relative contributions of human and non-human sources of fecal coliforms.

The resulting data will be used:

- By the RCD, in partnership with the USDA Natural Resources Conservation Service, to target public education and stewardship programs aimed at reducing sources of coliform contamination associated with agricultural and residential practices;
- By local schools to encourage student interest in science and ecology through hands-on participation, monitoring and evaluation of local waters in their "own back yards;"
- By the Tuolumne Utilities District to refine study boundaries for wastewater regionalization and connection studies and actions;
- By the RCD to promote community interest and participation in improving water quality through direct involvement in water quality monitoring and designing programs to improve water quality (building capacity and the ability of the community to design, develop and carry out its coordinated watershed management program through participating in monitoring and assessment activities)
- By the Tuolumne County Environmental Health Department to expand its understanding of the effectiveness of on-site septic systems in variable soils countywide

Total project cost is \$73,000.00. The RCD has \$24,500 available in the form of water quality monitoring equipment and \$1,000 in cash from Tuolumne County. Total grant funding requested is \$43,500.00. *\$48,500*